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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,135	10/14/2004	Taemi Wada	60188-982	9229

7590 04/14/2008

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EXAMINER	
ARMOUCHE, HADI S	
ART UNIT	PAPER NUMBER
2132	

MAIL DATE	DELIVERY MODE
04/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,135	WADA ET AL.	
	Examiner	Art Unit	
	HADI ARMOUCHE	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/14/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 10-12* is/are rejected.

7)☒ Claim(s) *3-9 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/14/04, 04/27/06, 04/7/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Denney et al (US 2003/0061623) referred to hereinafter by Denney.

3. Regarding claim 1, Denney teaches *a device for performing bidirectional control in digital bidirectional communication, comprising:*

an interface block for converting a format of input downstream data to generate downward data [figure 8: element 702]*;*

a CPU which receives the downward data and realizes a MAC (Media Access Control) function [figure 8: element 712 and paragraph 16]*; and*

a TEK process block for receiving TEK (Traffic Encryption Key) process data obtained from the downward data, analyzing a data structure of the TEK process data, and performing decryption processing based on a result of the analysis [paragraphs 19, 51 and 63].

4. The method of claim 11 has the same limitations as the device of claim 1 and hence same rejection rational is applied.

5. Regarding claim 2, Denney teaches that *the TEK process block includes:*

a structure analysis block for analyzing an MPEG structure included in the received TEK process data and a MAC (Media Access Control) structure buried in the MPEG structure to output MAC state information data that represents a state and meaning of MAC data having the MAC structure [paragraphs 20, 42 and 85];

a decryption block for identifying encrypted part of the TEK process data by referring to the MAC state information data, decrypting the encrypted part using TEK data for cryptanalysis, and integrating a result of the decryption with unencrypted part of the TEK process data [paragraphs 51 and 63].

6. The method of claim 12 has the same limitations as the device of claim 2 and hence same rejection rational is applied.

7. Regarding claim 10, Denney teaches that *the decryption block performs the steps of:*

referring to the MAC state information data to identify encrypted part and unencrypted part of the TEK process data [paragraphs 46 and 51]*;*

extracting from the TEK process data TEK collation data for selecting TEK data [paragraphs 63 and 64]*;*

referring to the extracted TEK collation data to select TEK data used for decryption from a plurality of items of pre-stored TEK data [paragraphs 63 and 64]*;*

converting the encrypted part so as to have a bit width equal to a unit of decryption processing and decrypting the converted encrypted part using the selected

TEK data; and integrating the decrypted data and the unencrypted part. [paragraphs 65-69].

8. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Momona et al, " Technologies and Standardization Activities in Cable TV Access Networks", Technical Report of Institute of Electronics, Information and Communication Engineers IN98-164, February 15th 1999, Pa"es 57-64, Vol 98 No.589, referred to hereinafter by Momona.

9. Momona discloses a device for performing bidirectional control in digital bidirectional communication (see the CM diagram 1), characterized by including an interface block (which is recognized as a member that the CM is supposed to have) for converting a format of input downstream data to generate downward data; and a TEK process block (see "2.5.1. Encryption") for receiving TEK process data (MPEG 2 packets, see "2.4.1. Downward PHY Frame") obtained from the downward data, analyzing the data structure of the TEK process data, and performing decryption processing based on a result of the analysis.

10. The method of claim 11 has the same limitations as the device of claim 1 and hence same rejection rational is applied.

Allowable Subject Matter

11. Claims 3-9 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Regarding claims 3 and 13, although the prior art of record teaches and/or suggest that *the TEK process block includes a structure analysis block for analyzing an MPEG structure included in the received TEK process data and a MAC (Media Access*

Control) structure buried in the MPEG structure, none of the prior art of record alone or in combination teaches that *the structure analysis block includes:*

a MAC header analysis block for receiving the MAC data position signal and the MAC data head position signal and determining a state information for fields included in a MAC header of the MAC structure except for an extension header and a MACMM (MAC Management Message) header, wherein the MAC header analysis block outputs extension header position information data which indicates a position of the extension header when the TEK process data includes the extension header, and the MAC header analysis block outputs MACMM header position information data which indicates a position of the MACMM header when the TEK process data includes the MACMM header;

an extension header analysis block for receiving the extension header position information data and checking fields of the extension header to output extension header state information data which represents state information of the extension header;

and a MACMM header analysis block for receiving the MACMM header position information data and checking fields of the MACMM header to output MACMM header state information data which represents state information of the MACMM header,

wherein the MAC header analysis block receives the extension header state information data and the MACMM header state information data and generates the MAC state information data based on state information of the fields included in the MAC header except for the extension header and MACMM header, the state information of the extension header which is represented by the extension header state information data, and the state information of the MACMM header which is represented by the MACMM header state information data.

13. Claims 4-9 are allowable by virtue of their dependency on claim 3.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HADI ARMOUCHE whose telephone number is (571)270-3618. The examiner can normally be reached on M-Th 7:30-5:00 and Fridays half day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. A./
HADI ARMOUCHE
Examiner, Art Unit 2132

/Gilberto Barron Jr/
Supervisory Patent Examiner, Art Unit 2132